

# DOH-Hillsborough County COVID-19 Surveillance Report

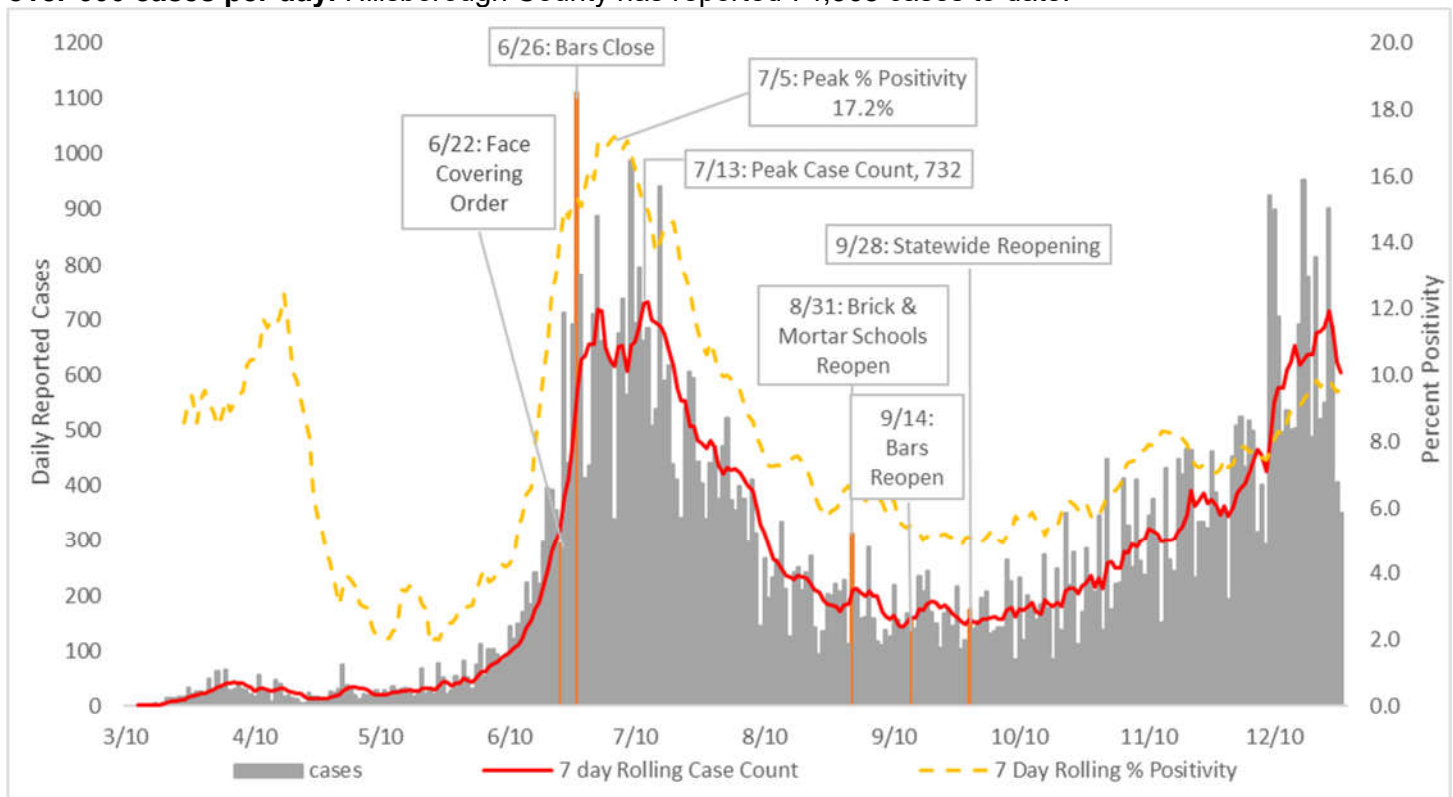
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**SUMMARY:** Over the past week (12/20 – 12/26), 4,231 COVID cases were identified in Hillsborough County, a decrease of 5% from 4,452 during the previous week. The 7-day moving **average of cases per day (604) decreased** and rolling **percent positivity (9.9%) increased slightly** from the previous week. Case rates are decreased this past week across almost every age group and case rates were highest in the **35-44** age group. Rates decreased in all race/ethnicities during week 52, and **case rate was highest in Hispanics**. Case rates also **decreased Statewide and in Pinellas and Pasco Counties**. During the past week, **testing volume has decreased slightly in Hillsborough County**. Pinellas County has a higher testing per 100 residents compared to Pasco and Hillsborough. The turnaround time for reporting of antigen testing results is averaging a day and a half, while PCR tests are on average taking 2 days to be reported. Hillsborough County **hospitalizations for COVID and daily admits for COVID continue to increase**. Hillsborough County is now averaging 353 total COVID inpatients a day, up 11% from last week.

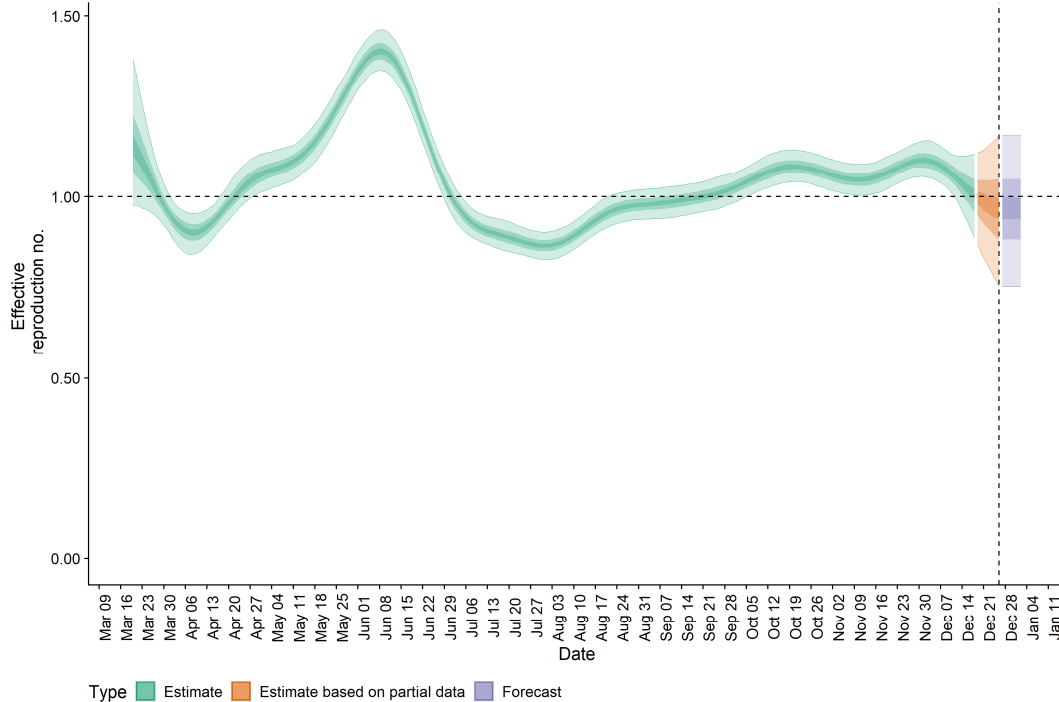
**INFLUENZA/RESPIRATORY SURVEILLANCE:** Influenza activity remains extremely low throughout Hillsborough County and the State. No outbreaks of Influenza or other respiratory pathogens have been reported this influenza season. Very few positive influenza labs have been received and no pediatric mortalities have been reported. Additional information and data about influenza surveillance is available at:

<http://www.floridahealth.gov/diseases-and-conditions/influenza/>

**Fig 1.** Daily New COVID cases and percent positivity trends in Hillsborough County Residents. The **7-day moving average for percent positivity increased slightly and is now 9.9%**. The **7-day average number of new cases per day (604) has slightly decreased this past week but continues to remain consistently over 600 cases per day**. Hillsborough County has reported 74,368 cases to date.

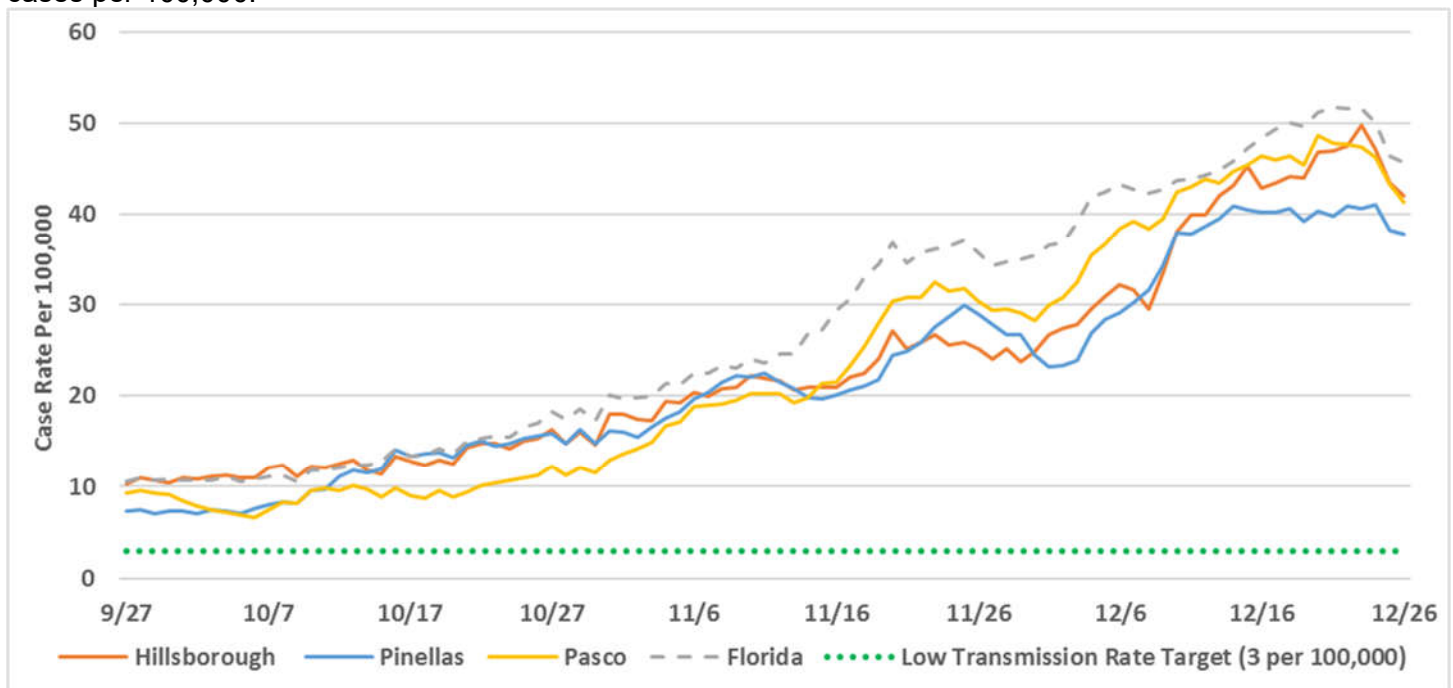


**Fig 2 UPDATED this week (below).**  $R_t$  median estimate for Hillsborough County since March 2020.  $R_t$  estimate is calculated based on “nowcasted” new case rates (incidence). Nowcasted refers to the fact that the incidence data has been corrected for the disease progression, reporting delays and observation error. Figure 2 includes the historical  $R_t$  median estimates (green), the past weeks nowcasted  $R_t$  median estimate based on partial data (orange) and the next 7 days forecasted  $R_t$  median estimate (purple). The colors, from darkest to lightest, indicate 20%, 50% and 90% credible intervals (CI), respectively. An  $R_t$  above 1.0 means the outbreak is growing – or viewed another way, one person is infecting more than one additional person – and  $R_t$  below 1.0 means that outbreak is shrinking. **The current estimate of  $R_t$  for Hillsborough County is 0.97 (90% CI = 0.75-1.2)** a slight decrease from last week where the estimate was 1.05 (90% CI = 1.01- 1.07)..

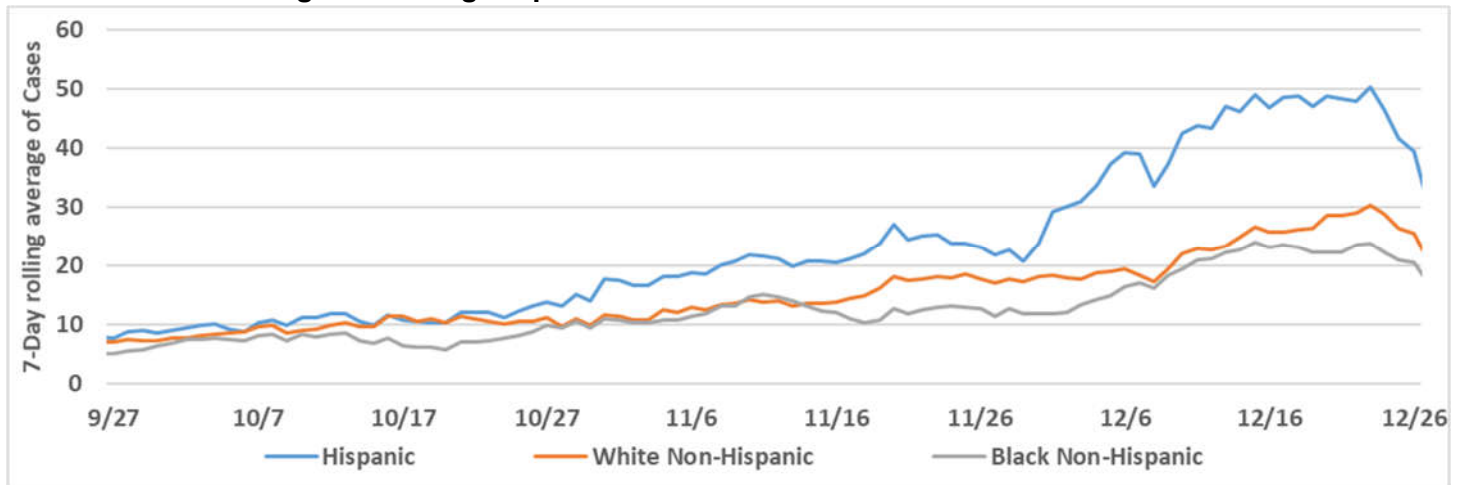


## CASES, CASE RATES AND GROUP SETTINGS

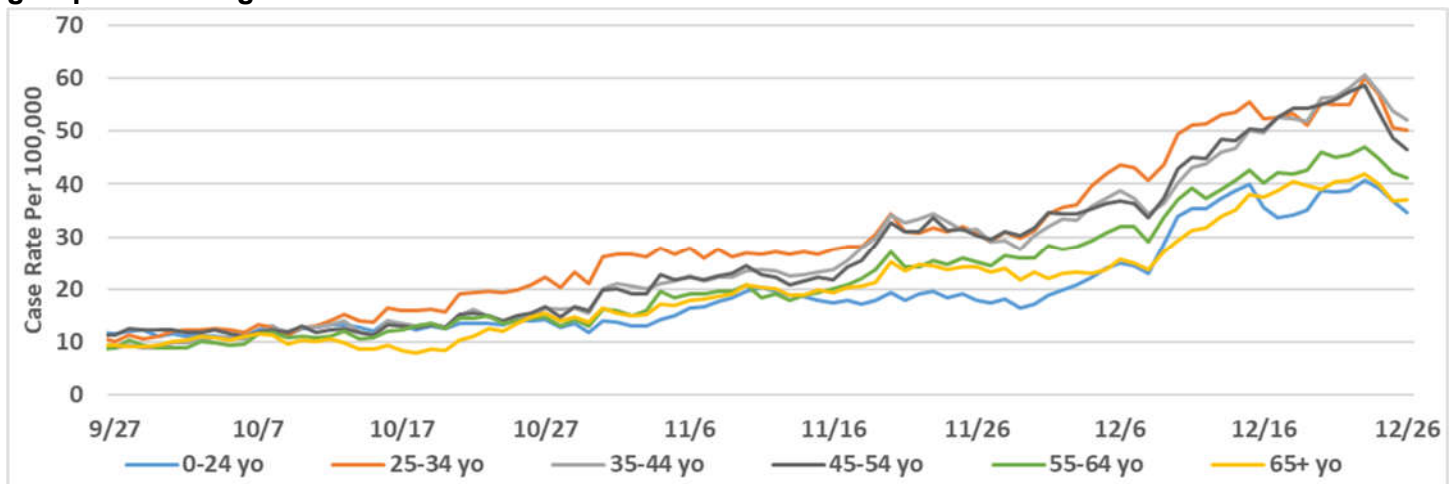
**Fig 3.** Comparison of COVID 7-day average case rate per 100,000 population for Pinellas, Pasco and Hillsborough Counties and the State of Florida for the past 90 days. All three **Tampa Bay Area counties saw rates decrease** over the past week. The **Florida case rate also decreased this past week** and is now 46 cases per 100,000.



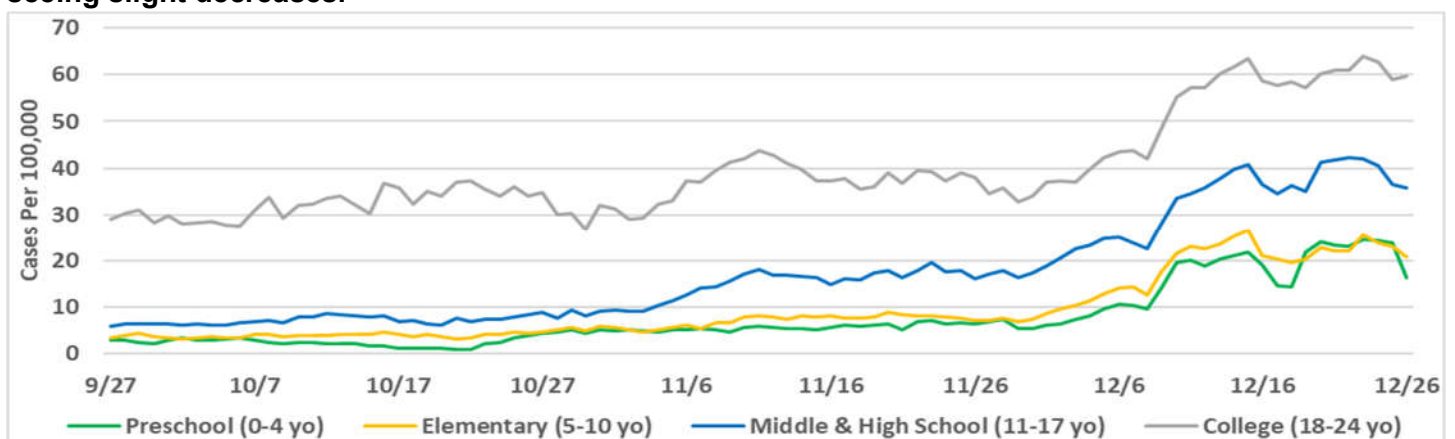
**Fig 4.** Comparison of COVID 7-day average case rate per 100,000 population by race and ethnicity for the past 90 days in Hillsborough County. Population data was acquired from FLHealth CHARTS. Cases with unknown race or ethnicity are excluded. Rates are remaining stable for most race and ethnicities, but **rates continue to remain highest among Hispanics.**



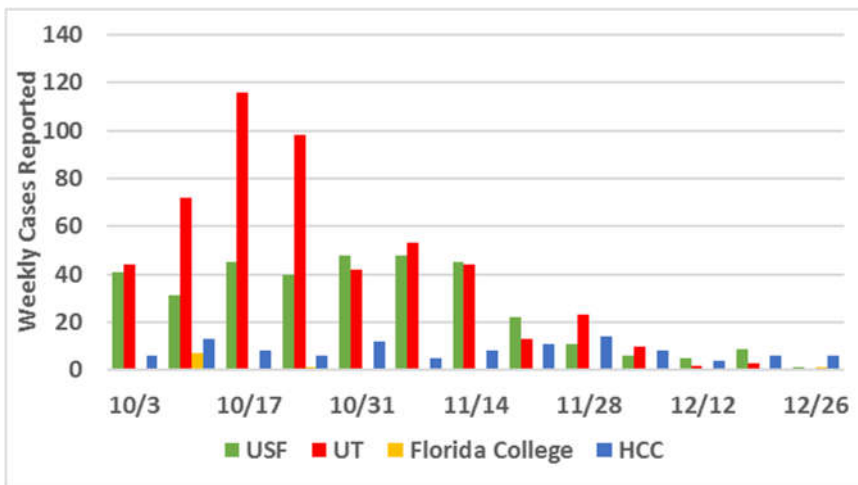
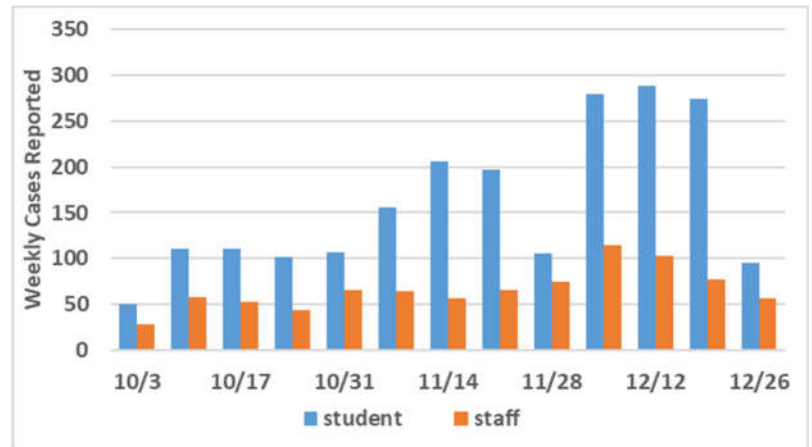
**Fig 5.** COVID 7-day average case rates per 100,000 population by age group for the past 90 days in Hillsborough County. **Rates have decreased across most age groups. This past week, the 35-44 age group had the highest case rate.**



**Fig 6.** The 0-24 yo age group from Fig 5 (above), broken out into Preschool aged (0-4 yo), Elementary aged (5-10 yo), Middle/High School aged (11-17 yo) and College aged (18-24 yo). COVID pediatric and college-aged case rates per 100,000 population by age group, over the past 90 days in Hillsborough County. **Rates continue to remain highest in college aged cases and remain steady while the other age groups are seeing slight decreases.**

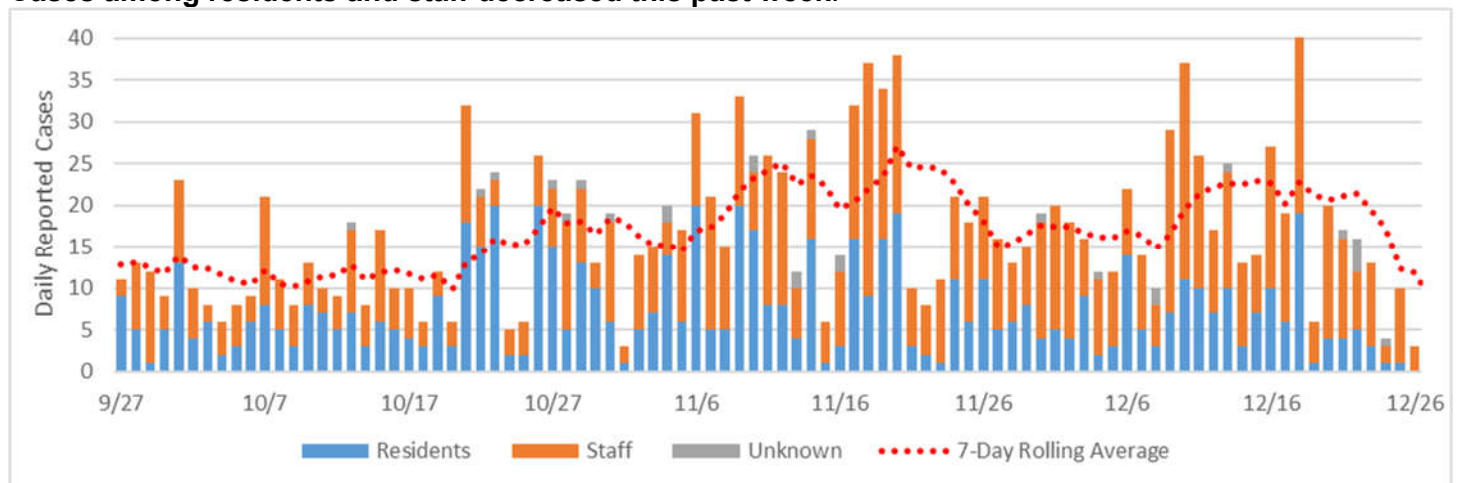


**Fig 7. (right)** Weekly reported COVID cases associated with **students and staff at K-12 schools** in Hillsborough County. COVID case must have been on campus during exposure period or infectious period to be counted. Public schools were closed for winter break during the past week and the weekly total number of cases **decreased from last week**. The majority of cases are associated with family gatherings, travel and extra-curricular activities.



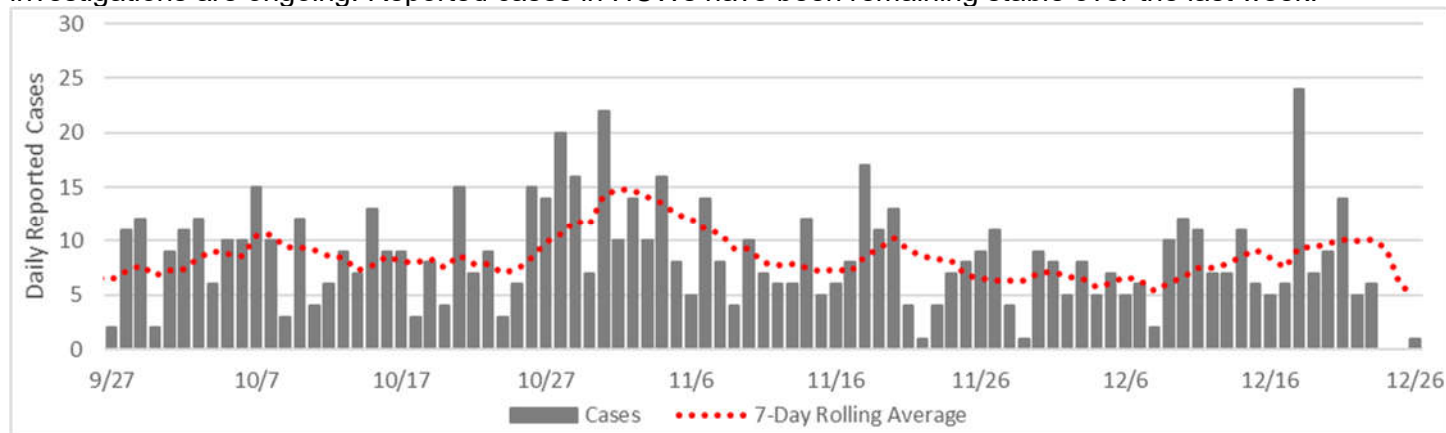
**Fig 8. (left)** Weekly reported COVID cases associated with **college students and staff** by reporting week. COVID case must have been on campus during exposure period or infectious period to be counted. All local campuses – except HCC - are doing only online learning and most have finished for the fall semester and have had limited numbers of students on campus since the Thanksgiving holiday. Low numbers of total cases were identified and **decreased this past week**.

**Fig 9.** Daily COVID cases associated with **LTCF residents and staff** for the past 90 days in Hillsborough County. COVID case must have been on LTCF site during exposure period or infectious period to be counted. **Cases among residents and staff decreased this past week.**



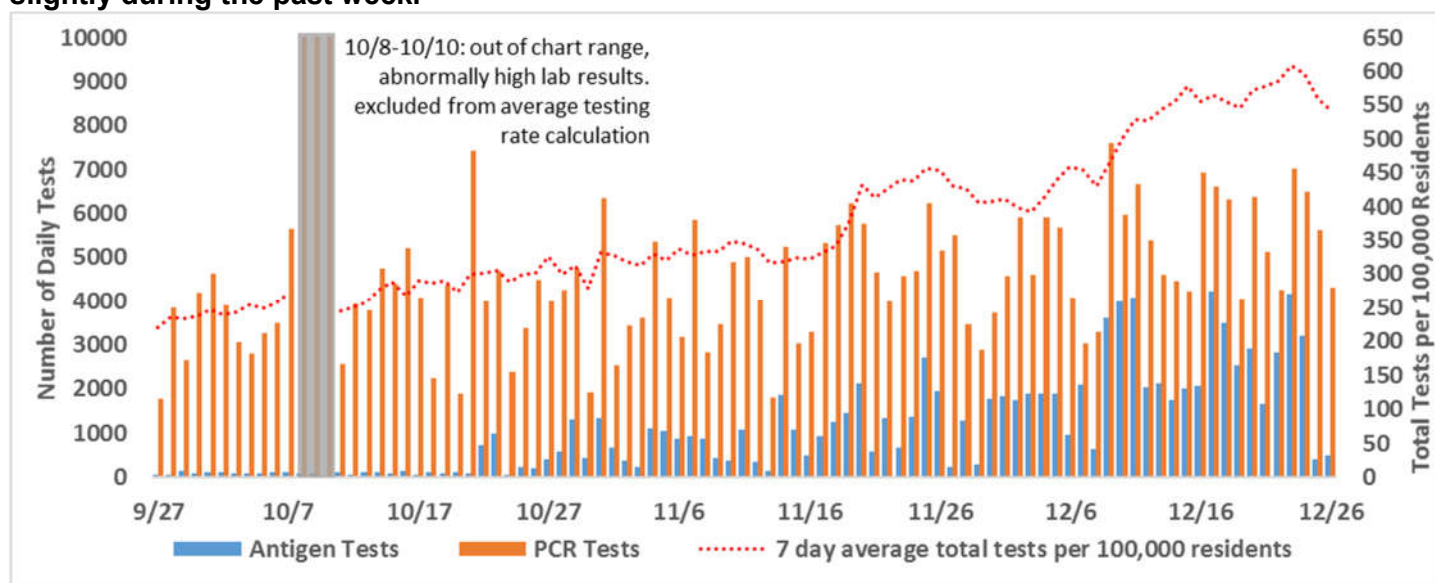


**Fig. 10.** COVID cases in **Health Care Workers (HCW)** for the past 90 days. To collect case occupation a case interview is required with the case, therefore the past week has missing/incomplete data, as case investigations are ongoing. Reported cases in HCWs have been remaining stable over the last week.

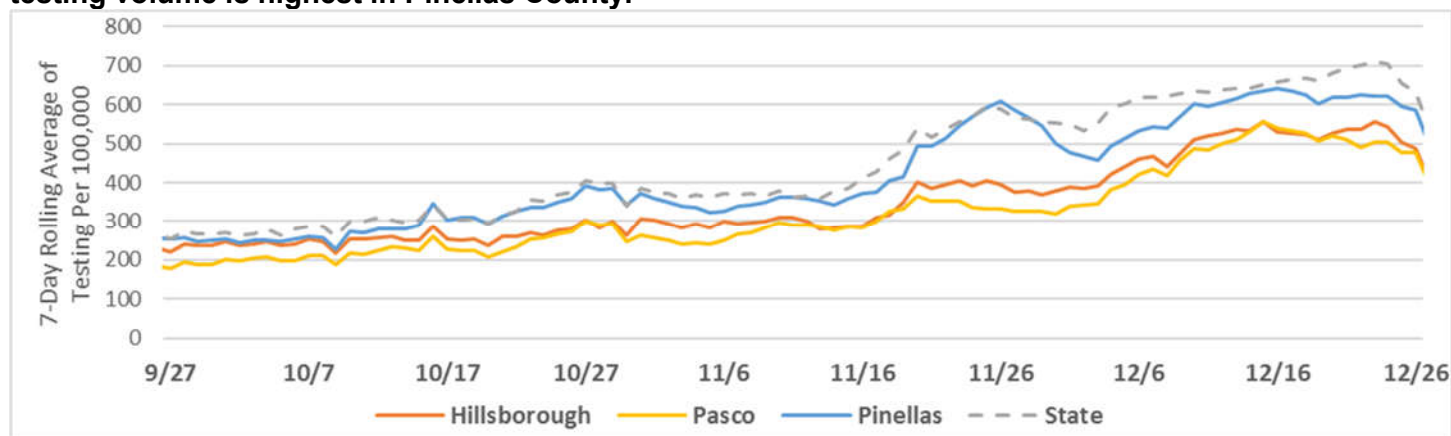


## TESTING VOLUME, TURN-AROUND TIME AND PERCENT POSITIVITY

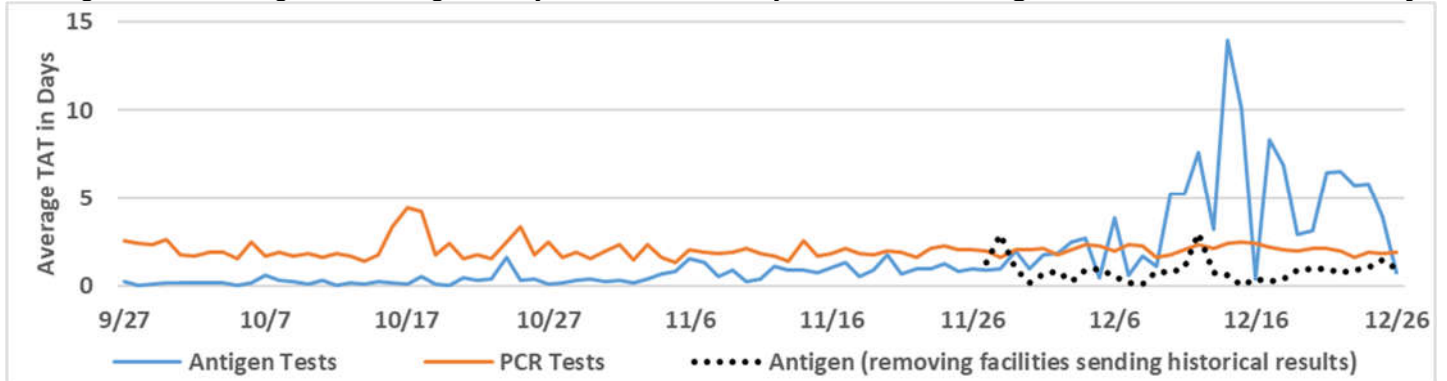
**Fig 11.** Reported COVID testing volume for Hillsborough County residents for the past 90 days. Tests are not de-duplicated by person or day; therefore, one person can have multiple tests counted across multiple days. Antigen testing volume decreased significantly on 12/24 and 12/25 and **overall testing volume decreased slightly during the past week.**



**Fig 11B.** Reported COVID 7-day average testing volume per 100,000 population for Pinellas, Pasco, and Hillsborough Counties and the State, for the past 90 days. Testing volume has remained steady in all counties, **testing volume is highest in Pinellas County.**



**Fig 12.** Average COVID testing turn-around-time (TAT) from specimen collection until results reported to DOH for the past 90 days. We are seeing delays in the turnaround time for the reporting of antigen testing results from a few facilities. When these results are filtered out of the analysis for the past month (dashed line), average TAT for antigen tests is generally less than one day. **PCR test average TAT remains around 2 days.**



**Fig 13.** COVID testing percent positivity by age group for the past 90 days on a weekly average, based on Merlin case data for Hillsborough County. Percent positivity was calculated by the date a lab was created that week for a positive COVID case divided by the total number of people tested that week. Decreasing percent positivity is indicating that fewer people tested positive, therefore the lower the percent positivity value the better, which is represented in green. Higher percent positivity values are represented in red. **Percent positivity increased across most age groups this past week, and percent positivity is highest in the 5-14 age group.**

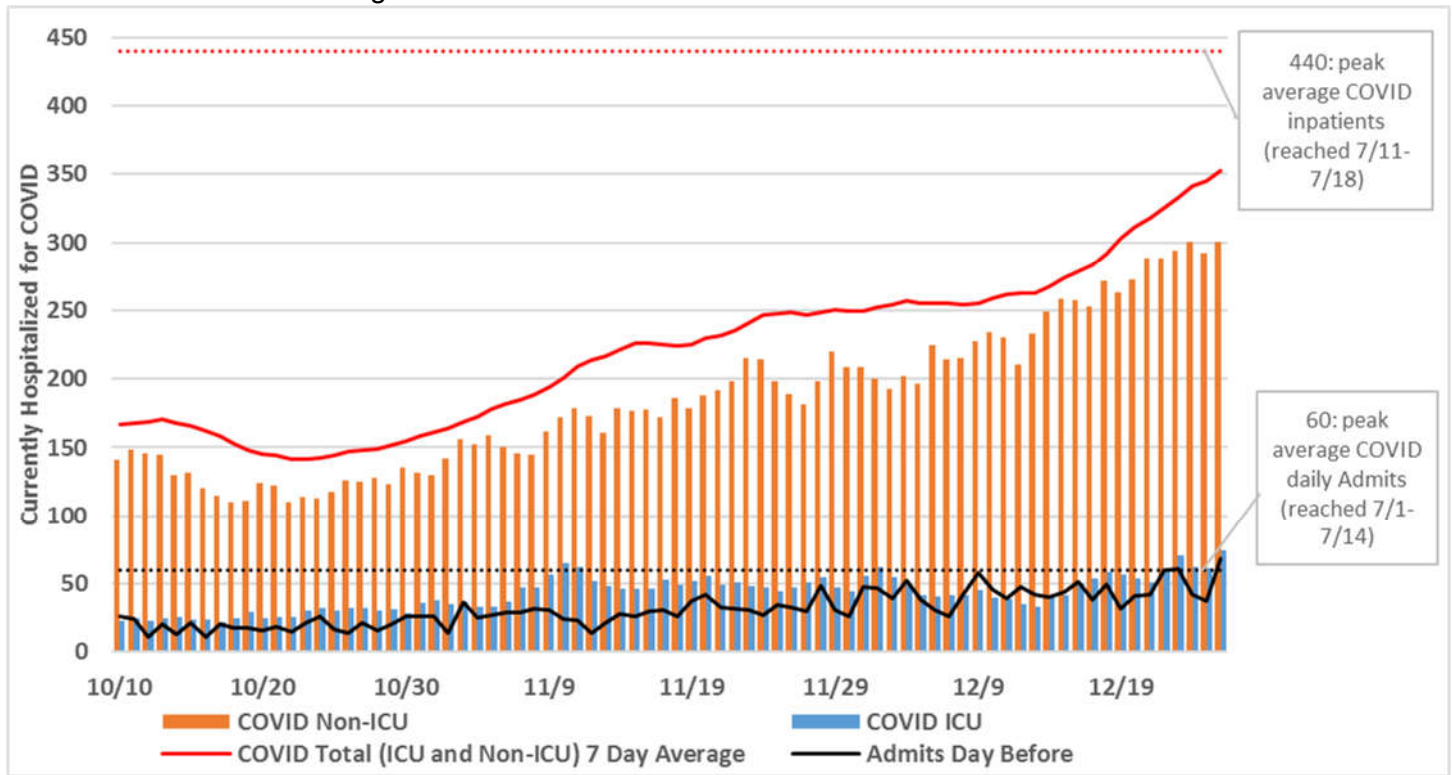
	10/3	10/10	10/17	10/24	10/31	11/7	11/14	11/21	11/28	12/5	12/12	12/19	12/26
0-4 years	4.3%	3.2%	1.9%	2.8%	5.5%	5.7%	5.5%	4.1%	6.9%	6.9%	6.6%	8.1%	9.0%
5-14 years	6.1%	6.0%	6.5%	6.8%	8.0%	8.2%	10.4%	7.9%	8.5%	9.2%	9.0%	9.3%	11.8%
15-24 years	9.2%	10.1%	10.3%	9.7%	8.8%	10.6%	12.2%	8.7%	7.6%	8.4%	9.5%	10.3%	10.6%
25-34 years	4.8%	4.9%	5.9%	6.6%	7.7%	8.0%	8.8%	7.8%	6.8%	8.4%	9.0%	9.4%	8.4%
35-44 years	4.5%	4.9%	5.5%	5.5%	6.9%	7.5%	8.4%	8.7%	7.8%	8.5%	8.5%	10.0%	10.5%
45-54 years	5.1%	4.9%	5.0%	5.4%	6.7%	7.7%	7.8%	8.6%	8.7%	8.6%	9.2%	11.4%	10.4%
55-64 years	3.9%	4.0%	4.4%	4.7%	5.0%	6.3%	6.3%	6.0%	7.0%	7.1%	7.6%	9.0%	9.3%
65-74 years	4.1%	3.8%	3.1%	4.4%	4.3%	5.9%	5.9%	5.6%	7.1%	6.0%	7.1%	9.0%	9.6%
75-84 years	3.8%	3.7%	2.7%	3.5%	4.5%	6.5%	6.8%	5.9%	6.9%	5.8%	6.4%	8.2%	9.0%
85+ years	4.1%	2.3%	3.4%	4.8%	4.2%	5.1%	5.0%	2.9%	3.6%	2.9%	4.8%	5.8%	5.7%

**Fig 13B.** COVID testing rate by age group, per 100,000 population for the past 90 days on a weekly average, based on Merlin case data for Hillsborough County. Testing rates indicate how many people in that specific age group for Hillsborough County are being tested to identify cases within the community. The higher the testing rate the better, indicated in green. The lower the testing rate is indicated in red. **Testing rate is highest in the 85+ age group, and lowest in the 5-14 and 0-4 age groups.**

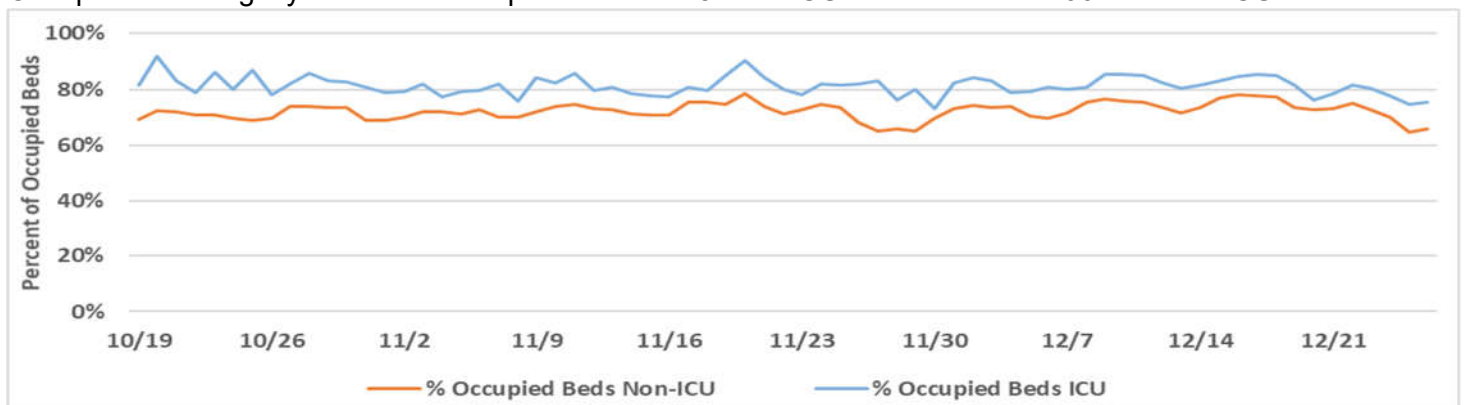
	10/3	10/10	10/17	10/24	10/31	11/7	11/14	11/21	11/28	12/5	12/12	12/19	12/26
0-4 years	71	76	66	85	94	95	93	124	106	136	289	277	185
5-14 years	71	84	74	81	90	96	95	137	122	175	288	256	209
15-24 years	233	250	266	270	284	291	276	355	414	458	553	513	504
25-34 years	257	263	270	292	339	325	308	394	460	498	566	548	668
35-44 years	230	258	245	257	293	285	271	375	375	440	519	521	510
45-54 years	234	264	259	257	294	283	275	363	356	425	487	474	449
55-64 years	264	278	281	288	324	302	298	404	379	429	492	476	441
65-74 years	238	265	242	262	334	275	270	379	332	371	435	432	361
75-84 years	294	303	282	300	418	322	321	465	385	452	484	491	423
85+ years	411	397	420	398	494	426	537	856	562	815	833	760	796

## HOSPITALIZATIONS AND HOSPITALIZATION RATE

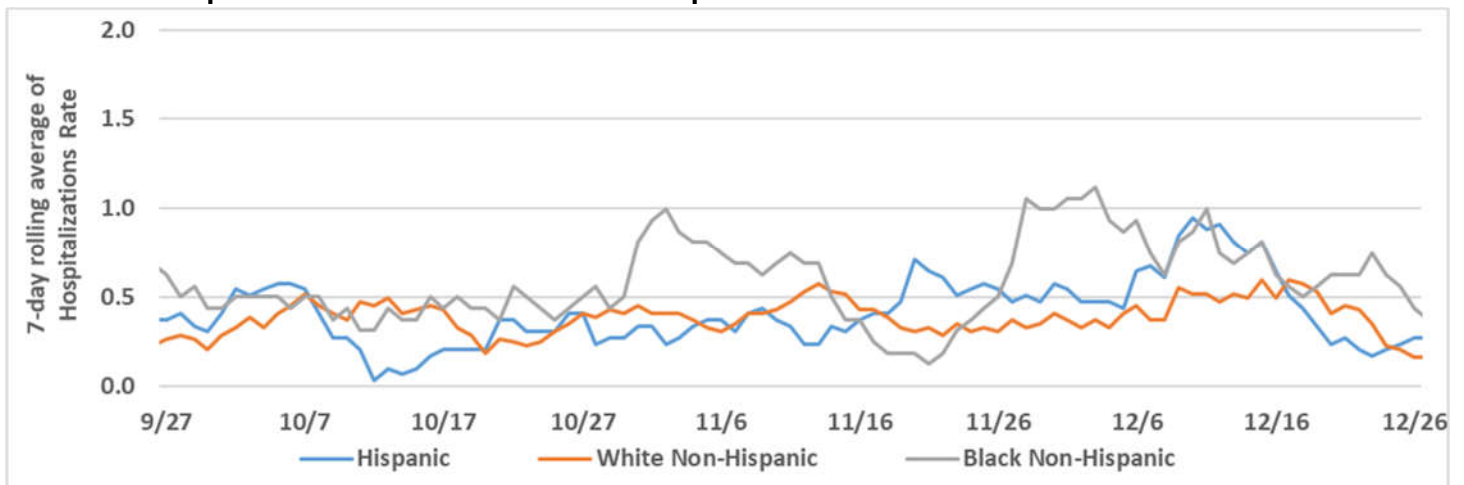
**Fig 14.** COVID admits and inpatients in Non-ICU and ICU beds in Hillsborough County, based on the AHCA ESS Report. Hillsborough County **hospitalizations for COVID continue to increase** and are now averaging 353 total COVID inpatients a day, up 11% from last week. Daily COVID admits have averaged 50/day this past week and are also increasing.



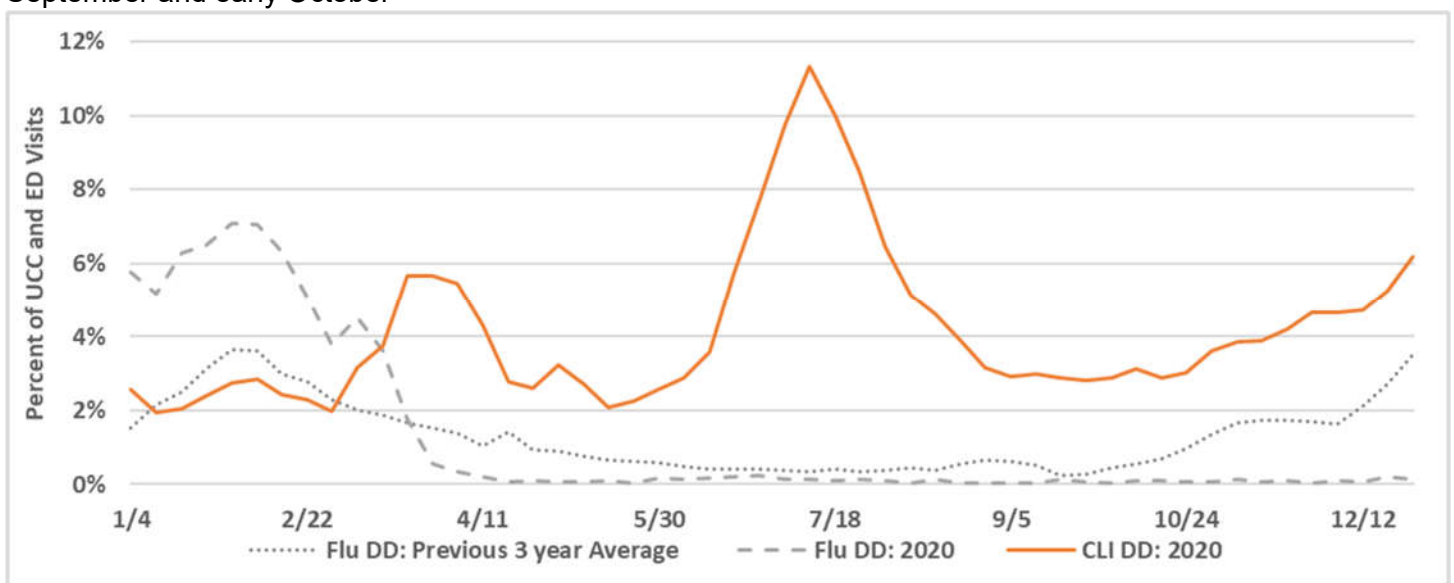
**Fig 15.** Percentage of Hospital and ICU beds occupied in Hillsborough County, based on AHCA ESS Report. Occupied beds slightly decreased this past week at 75% for ICU bed and around 66% in Non-ICU beds.



**Fig 16.** COVID Hospitalization rate per 100,000 by Race/ethnicity, over the past 90 days, based on Merlin case data. Cases with unknown race/ethnicity are excluded. Population data was acquired from FLHealth CHARTS. To collect case hospitalization a case investigation and/or interview is required with the case, therefore the past week has missing/incomplete data as case investigations are ongoing. Over the past week, **Hospitalization rates continue to remain highest in Black Non-Hispanic but did show a slight decrease. White Non-Hispanic cases saw a decrease in hospitalization rates.**



**Fig 17.** Percentage of Urgent Care Center (UCC), Hospital, and Emergency Department (ED) visits with a discharge diagnosis (DD) for influenza (flu) or COVID-like illness (CLI) in Hillsborough County, based on FL-ESSENCE reporting facilities, by reporting week. Visits remain well below the historical values for flu. **The percentage of visits for CLI have increased from last week and remains higher than levels seen during September and early October**

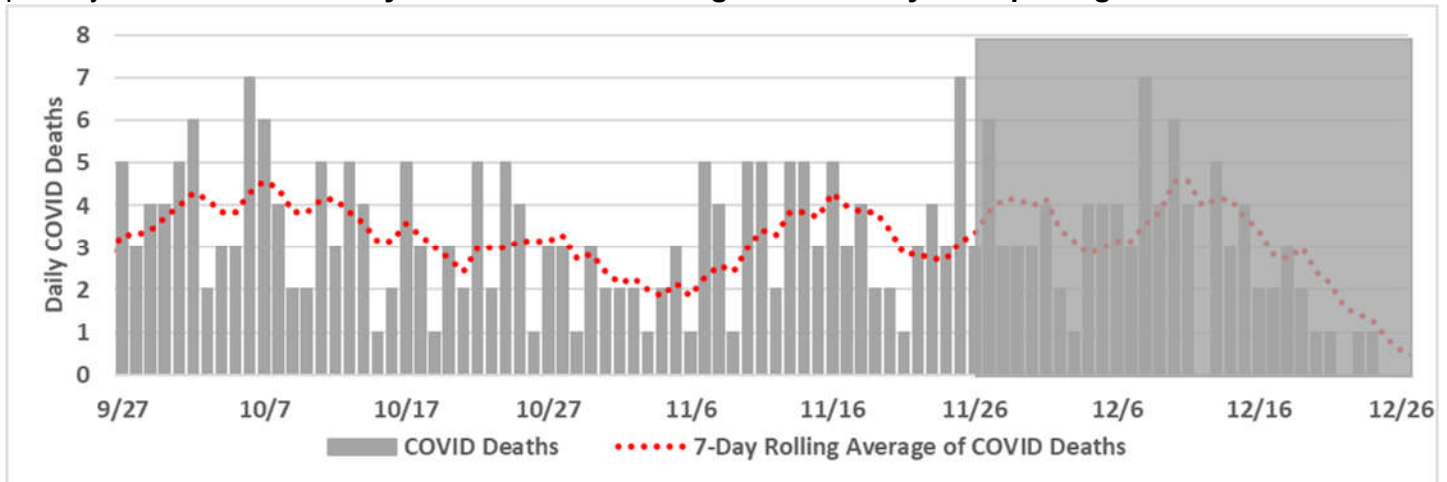


## DEATHS AND DEATH RATES

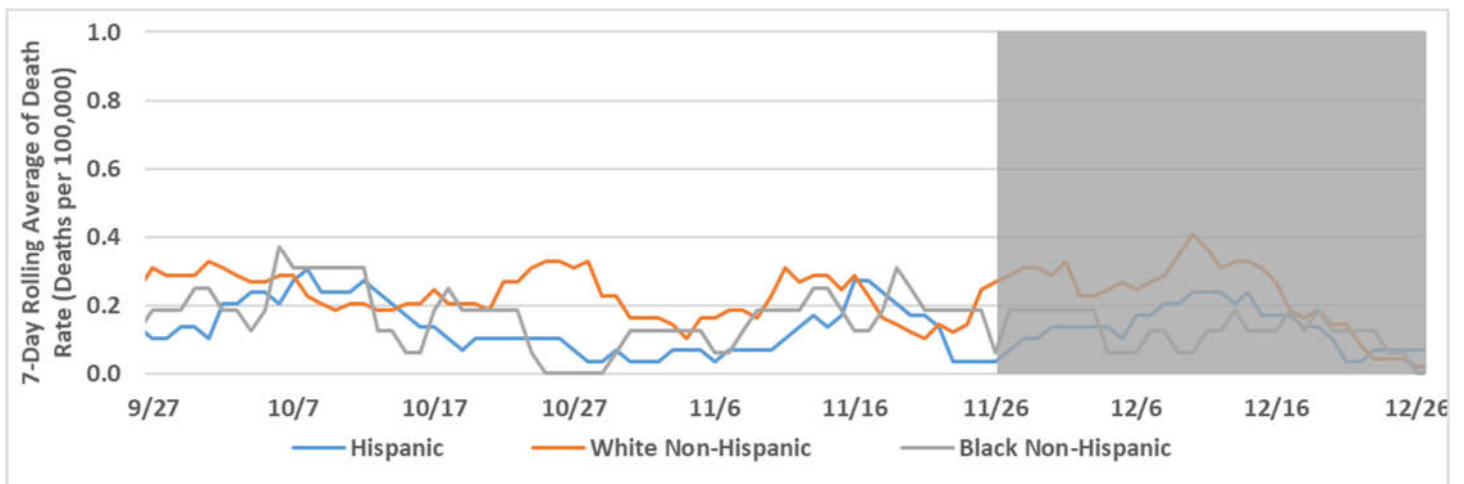
**Important Note:** COVID deaths are reported to DOH from a variety of sources including hospitals, Medical Examiners Offices and from the Vital Statistics database. The Vital Statistics Database Data is reported electronically and can have delays of 2-4 weeks from the date of death until the date reported. Data during this time frame should be assumed to be incomplete and is indicated by the shaded area in each graph below.



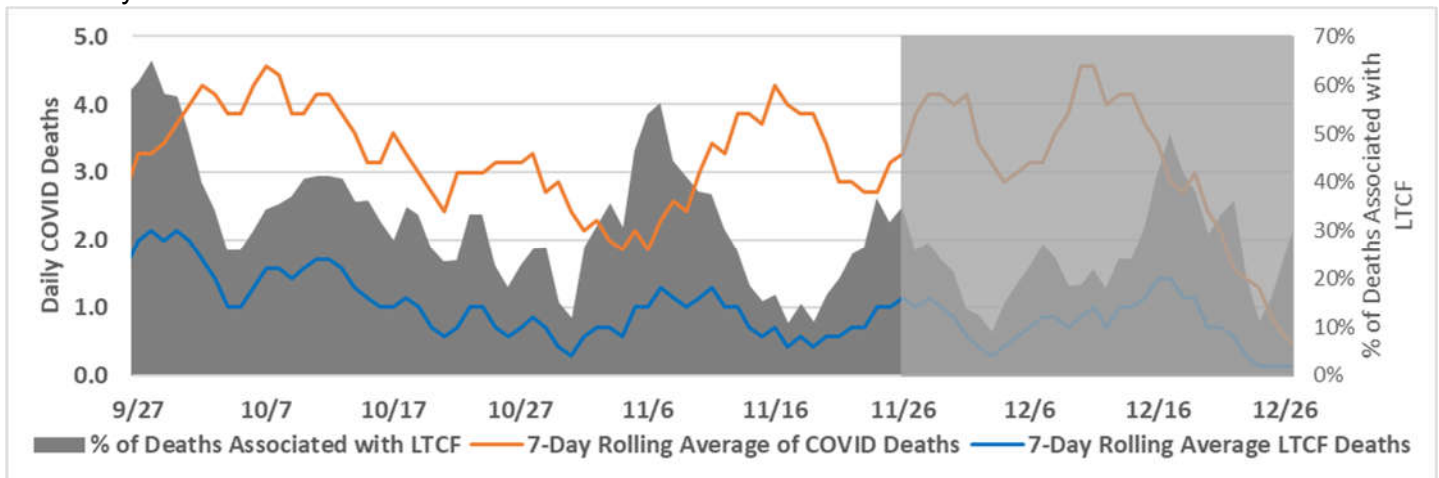
**Fig 18.** Daily COVID deaths reported by date of death over the past 90 days, based on Merlin case data and Vital Statistics Death data. Over the past 90 days, reported COVID deaths have averaged been between 2 – 4 per day, **deaths are currently stable but could change due to delays in reporting.**



**Fig 19.** COVID 7-day rolling average death rate per 100,000 by race/ethnicity, for the past 90 days, based on Merlin case data and Vital Statistics Death data. Population data was acquired from FLHealth CHARTS. Cases with unknown race/ethnicity are excluded. Over the past 90 days, **death rates have been slightly decreasing across race/ethnicities.**



**Fig 20.** COVID Deaths associated with LTCFs as a percentage of all deaths, over the past 90 days, based on Merlin Data and Vital Statistics Death data. To date, 448 of the 1058 (39%) COVID deaths in Hillsborough County were associated with LTCFs. Recently, LTCF associated deaths have accounted for about 1 death/day.



**Fig 21.** COVID cases, deaths, case fatality rate, and mortality rates by gender, age group and race/ethnicity in Hillsborough County.

Gender	Cases	Deaths	Case Fatality Rate	Mortality rate per 100,000 population
Female	38983	499	1.28%	67.60
Male	33980	559	1.65%	79.06
Unknown	709	0	0.00%	
<b>Total</b>	<b>73672</b>	<b>1058</b>	<b>1.44%</b>	<b>73.21</b>
Age Group	Cases	Deaths	Case Fatality Rate	Mortality rate per 100,000 population
0-4 years	1545	0	0.00%	0.00
5-14 years	3935	1	0.03%	0.55
15-24 years	13264	2	0.02%	1.09
25-34 years	14495	1	0.01%	0.45
35-44 years	11570	14	0.12%	7.11
45-54 years	11079	35	0.32%	18.22
55-64 years	8409	122	1.45%	70.22
65-74 years	4823	224	4.64%	181.89
75-84 years	2709	344	12.70%	578.35
85+ years	1402	315	22.47%	1319.70
Unknown	441	0	0.00%	
Race	Cases	Deaths	Case Fatality Rate	Mortality rate per 100,000 population
White	32256	699	2.17%	65.11
Black	8934	167	1.87%	64.76
Other	11465	151	1.32%	132.69
Unknown	21017	41	0.20%	
Ethnicity	Cases	Deaths	Case Fatality Rate	Mortality rate per 100,000 population
Hispanic	20451	242	1.18%	57.27
Non-Hispanic	29741	659	2.22%	64.44
Unknown	23480	157	0.67%	

## VACCINATIONS

**Fig 22.** COVID-19 vaccine summary for Statewide and Hillsborough County. Data through 12/26/2020:

Statewide COVID-19 Vaccinations		118764	Hillsborough County COVID-19 Vaccinations		9124
	First Dose	118764		First Dose	9124
	Series Complete	0		Series Complete	0

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Additional COVID surveillance data, visualizations and information can be found at the links below:

- Florida Department of Health Statewide COVID Dashboard: <https://experience.arcgis.com/experience/96dd742462124fa0b38ddedb9b25e429/>
  - Hillsborough County COVID Dashboard: <https://www.hillsboroughcounty.org/en/residents/public-safety/emergency-management/stay-safe/covid-19-dashboard>
  - Hillsborough County School District Dashboard: <https://hillsboroughschools.org/doc/2744/school-reopening-plan/frequently-asked-questions/coviddash/>
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Additional notes about data sources and data collection for the charts and tables used in this report:

**Merlin reportable disease database:** Merlin serves as the state's repository of reportable disease case reports, including automated notification of staff about individual cases of high-priority diseases. Access to Merlin is available only to approved Department of Health employees. COVID data is entered in Merlin in multiple ways. Data fields associated with Electronic Lab Reports (ELRs) or electronic case reports will be auto populated when available. Additionally, specific to COVID cases, the Healthy Together APP allows for individuals to complete and report demographics, symptomology and other data elements to DOH. Case investigators and contact tracers also make attempts to interview each COVID case to collect or verify demographics and other important public health data. As the data is collected from case investigations the Merlin database will be updated. Some data elements, such as deaths and group care associations (Jails, LTCFs, and Schools) are reviewed by local and state staff for accuracy. Data within Merlin is considered provisional and is subject to change.

**AHCA ESS Report:** Florida's Agency for Health Care Administration (AHCA) requires all licensees providing residential or inpatient services to use the Emergency Status System (ESS) database for reporting its emergency status, planning or operations. In response to COVID the Agency added new reporting requirements related to COVID cases and hospitalizations at AHCA licensed facilities.

**ESSENCE-FL:** The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) is a biosurveillance system that collects emergency department chief complaint data from participating hospitals and urgent care centers in Florida, call data from the Florida Poison Information Center Network, reportable disease data from the Merlin database, and mortality data from the Florida Office of Vital Statistics. The objective of this surveillance system is to provide the epidemiologist with the data sources and analytic tools needed to identify outbreaks or unusual trends more rapidly, leading to a timelier public health response.

**FLHealth CHARTS:** Powered by Florida's Bureaus of Community Health Assessment and Vital Statistics. CHARTS stands for Community Health Assessment Resource Tool Set, and compiles multiple datasets from a variety of agencies into a single source. Several data sources include Agency for Health Care Administration (AHCA), Florida Department of Health, Florida Department of Elder Affairs, Florida Department of Law Enforcement, and many others. A complete list of data sources can be found [here](#). Data queries such as population estimates, birth rates, death rates, marriage rates, and reportable disease statistics can be found using this tool.